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Leaf Yellowing and Early Leaf Drop on Shade Trees

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Leaf Yellowing and Early Leaf Drop on Shade Trees

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Many homeowners are alarmed at what appears to be an early case of fall color and leaf drop on their shade trees, particularly on green ash, hackberry and maple throughout eastern South Dakota. Homeowners may think it is just a sign that fall is on its way, but the problem could be more complex; affected trees should be examined to determine the cause of the color change. In some cases, quick action can prevent a future problem.

There is no single cause for the early fall color change on leaves in South Dakota and adjacent states. Speculation exists that the cool weather experienced this year has caused trees to begin preparing for winter earlier than normal.

However, trees are not easily fooled. Most northern trees depend on day length, not weather, as the sign they should begin preparing for winter. As the days become shorter, trees begin to harden off their growth and store reserve food for the winter. Then, as the nights begin to cool to the 40's, leaves lose their normal green color, and the reds and yellows become visible. While the unusual weather, particularly the cool nights, may be responsible for some of the color change and leaf drop, homeowners are advised to check for other possibilities.

Many large hackberries and maples show just individual branches turning yellow. This may be caused by squirrels chewing the bark away from the base of the branches. These branches will not recover, and homeowners who observe this problem on their tree may want to construct barriers to prevent squirrels from climbing the tree and girdling more branches.

A fungus disease, known as Verticillium wilt, may also be responsible for the leaf drop on some trees, particularly green ash, Norway maple and catalpa. Typical symptoms start with one or two branches that turn yellow and then the symptoms spread to adjacent branches. In some cases, the entire tree may turn yellow. Verticillium wilt disease is a serious problem, and affected trees may die after several years of infection. The best treatment is to remove dead branches and fertilize the tree in the fall after the first hard frost. There is no cure for the disease, but treatment may prolong life.

Another reason for the early color change may be aphids or other sucking insects. These small sucking insects enjoy the cool, moist weather, so with this year's cool South Dakota temperatures, their populations have increased dramatically in past weeks. Heavily aphid-infested trees are described as `dripping sap.' If the fallen leaves, lower twigs, or sidewalks beneath the trees are sticky or are covered with a black, sooty substance, a heavy aphid infestation may be the problem. The color change may be due to aphids sucking the sap from the leaves. If only a few branches are affected, the tree is not in danger. However, if the aphids are causing the majority of leaves to change color, an insecticide may be necessary.

There are other possibilities which may be responsible for the leaves turning color earlier than usual. Diseases, root problems, and other environmental factors may be the cause for the color change on a particular tree. While the cool weather may be the reason some trees are changing color, it is always best to inspect the tree for other possibilities.

If homeowners are "stumped"by the color change on trees, contact local district foresters, Cooperative Extension Service agents, or tree care professionals (tree service, nursery, or landscape company) for more information.

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